

RESEARCH DEPARTMENT

THE SERVICE AREA OF THE LES PLATONS TELEVISION TRANSMITTER

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# THE SERVICE AREA OF THE LES PLATONS TELEVISION TRANSMITTER

## SUMMARY

This report gives the results of a field strength survey of the Les Platons television transmitter.

The service provided in Jersey is very good. Guernsey, on the whole, has a good service, although a small area in the west of the island receives a field strength of less than  $100 \mu\text{V/m}$ . Ninety-seven per cent of the population of the Channel Isles is within the  $0.1 \text{ mV/m}$  field strength contour.

## 1. INTRODUCTION.

The television transmitter serving the Channel Isles is situated on the north coast of Jersey at Les Platons. The transmission is on Channel 4 (vision,  $61.75 \text{ Mc/s}$ ; sound,  $58.25 \text{ Mc/s}$ ). The service is provided by a  $0.5 \text{ kW}$  transmitter driving a horizontally polarised two-tier superturnstile aerial  $130 \text{ ft}$  ( $40 \text{ m}$ ) above ground level. The effective radiated power (e.r.p.) is  $0.8 \text{ kW}$ .

The service opened on 3rd October 1955.

## 2. GENERAL.

The survey was carried out by using a horizontal loop aerial mounted on a vehicle  $12 \text{ ft}$  ( $3.6 \text{ m}$ ) above ground level. The measurements were made on the sound transmission (e.r.p.  $0.2 \text{ kW}$ ) but the results have been corrected to correspond to the value of the peak-white vision transmission (e.r.p.  $0.8 \text{ kW}$ ) and an aerial height of  $30 \text{ ft}$  ( $9.2 \text{ m}$ ) above ground level.

Fig. 1 shows the position of the Channel Isles in relation to England and the method of feeding the programmes to the Les Platons transmitter.

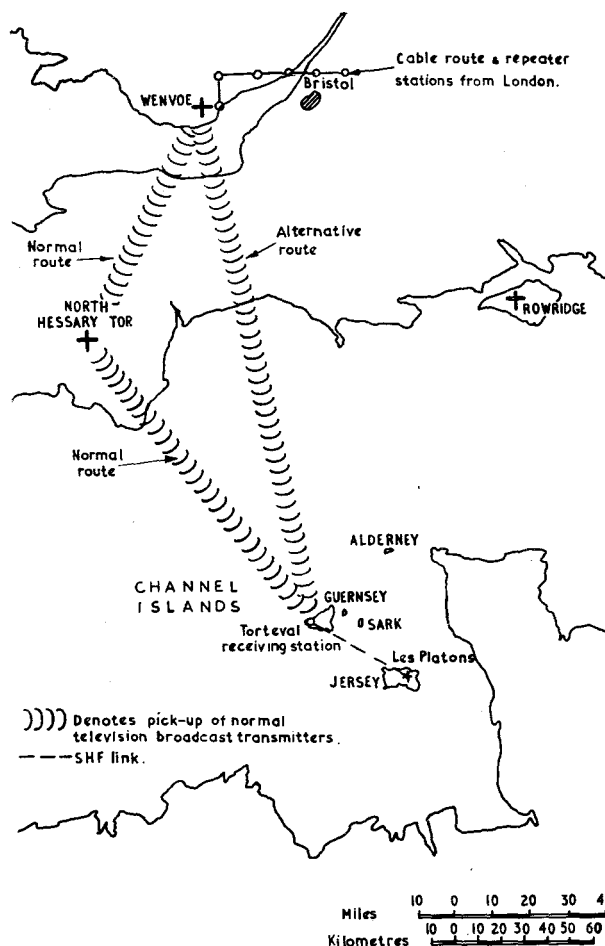


Fig. 1

## 3. RESULTS.

A detailed survey was carried out on the islands of Guernsey and Jersey. No measurements were made on the smaller islands. The results are presented in two field strength contour maps Fig. 2(a) (map T.344) and Fig. 2(b) (map T.345) for Guernsey and Jersey respectively. The maximum, median and minimum values of field strength in the towns and villages in both islands are given in Table 1.

TABLE 1

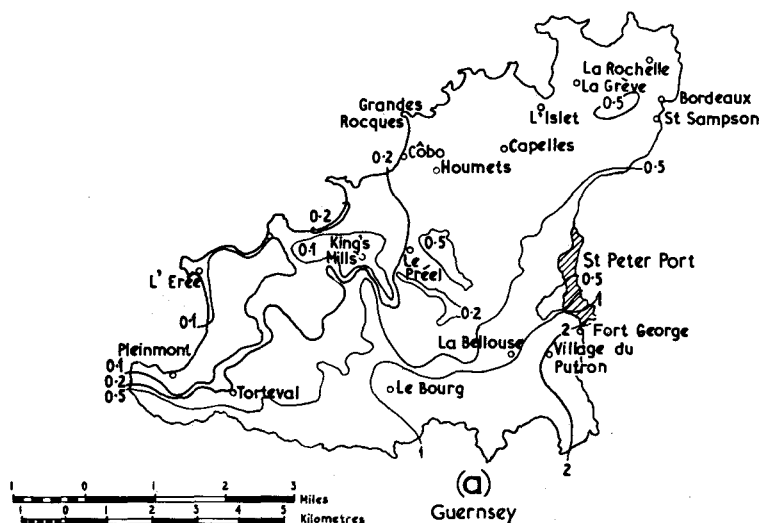
Field Strength in mV/m at 30 ft (9.2 m) AGL

## GUERNSEY

Place	Max.	Median	Min.
Les Arquets	0.11	0.08	0.05
La Bellouse	1.2	0.84	0.27
Le Bigard	1.3	0.67	0.24
Blanches Rocques	0.21	0.13	0.048
Bordeaux	0.75	0.48	0.21
Le Bourg	1.9	1.2	0.42
Les Buttes	0.94	0.48	0.2
Capelles	0.8	0.4	0.11
Les Cartiers	0.75	0.48	0.15
Les Effards	0.84	0.53	0.34
L'Erée	0.14	0.12	0.05
Fauxquets	0.067	0.042	0.03
La Fosse	2.1	1.1	0.21
Grandes Rocques	0.4	0.3	0.2
La Grève	0.53	0.24	0.12
Le Gron	0.67	0.21	0.13
L'Islet	0.42	0.21	0.15
King's Mills	0.13	0.07	0.04
Les Landes	1.2	0.84	0.53
Les Lohiers	0.3	0.13	0.05
Les Mielles	0.67	0.38	0.13
Mont Saint	0.27	0.13	0.06
Les Murchez	0.67	0.47	0.3
Perelle	0.11	0.06	0.03
Pleinheume	0.84	0.47	0.2
Pulias	0.3	0.24	0.13
Richmond	0.13	0.09	0.04
Les Sages	0.53	0.42	0.17
St. Andrew	0.67	0.25	0.09
St. George	0.4	0.27	0.12
St. Peter Port	6.0	0.5	0.13
St. Sampson	0.84	0.4	0.11
Saltpans	0.42	0.24	0.15
Les Simons	0.67	0.42	0.21
Sous l'Eglise	0.27	0.15	0.04
Torteval P.O.	0.06	0.04	0.03
Tourmets	0.6	0.27	0.12
La Villiaze	0.94	0.67	0.27

(continued on page 4)

T 344



Population within:-	Guernsey	Jersey	Other Islands	Total
5 mV/m	—	12,550	—	12,550
0.5 mV/m	15,540	55,630	570	71,740
0.1 mV/m	41,250	57,300	610	99,160

T 345

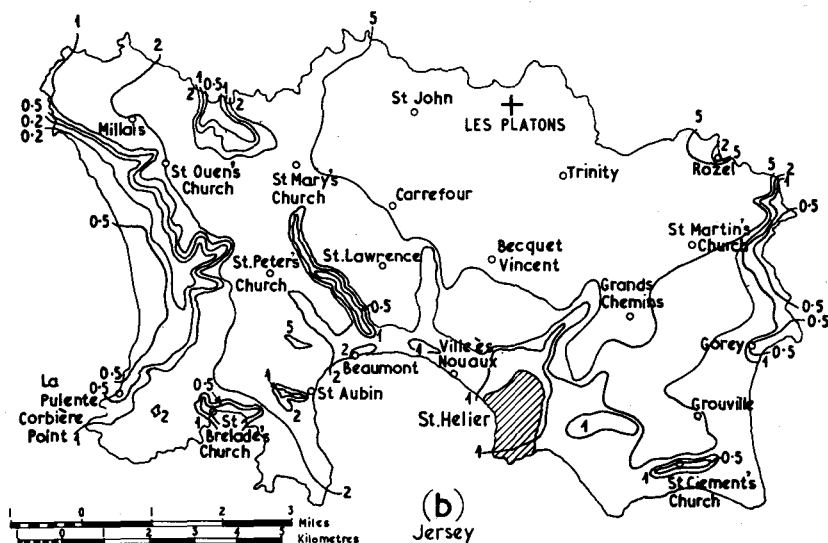


Fig. 2 - Les Platons (measured)

Channel 4 (61.75 Mc/s)

Site height: 440 ft (134 m) AMSL  
 Aerial height: 133 ft (40 m) AGL  
 E.R.P.: 0.8 kW  
 Aerial: 2-tier superturnstile  
 Polarisation: Horizontal

**Note:**

The contours represent field strength in mV/m at 30 ft (9.2 m) above ground exceeded at 50% of receiving sites in a given locality. The value exceeded at 90% of receiving sites may be as much as 10 dB below the value indicated by the contours particularly in hilly or built-up areas.

## JERSEY

Place	Max.	Median	Min.
Anneville	0.75	0.36	0.15
Beaumont	2.8	1.7	0.53
Bel Royal	2.4	1.3	0.53
Le Bourg	2.1	1.2	0.47
Carrefour	-	>5.0	-
Le Câtel	-	>5.0	-
Faldouet	6.7	4.2	2.1
Five Oaks	11.0	5.6	1.9
Gorey	1.9	0.47	0.27
Grands Chemins	-	>5.0	-
Grouville	6.0	2.7	0.84
Le Haguais	2.4	1.2	0.3
Le Hocq	2.4	1.7	1.1
Le Hurel	2.4	1.5	0.94
Le Marais (Nord)	3.8	2.4	0.94
La Mare Mill	0.53	0.3	0.11
Millais	3.4	2.1	0.84
Millbrook	1.9	0.75	0.24
Mont au Prêtre	6.0	4.7	1.3
Mont Felard	7.5	3.0	0.53
La Moye	3.8	2.1	0.53
Oaklands	-	>5.0	-
L'Ouzière	0.75	0.53	0.4
Les Paliènes	3.4	1.7	0.84
Pontac	1.3	0.67	0.42
Portinfer	4.7	2.7	0.6
Potiron	4.2	2.6	0.94
Le Puits	0.53	0.38	0.2
Puits Léoville	4.7	1.3	0.15
La Pulente	0.84	0.42	0.12
Red Houses	4.7	3.0	0.53
Le Rondin	4.7	1.7	0.34
Rozel	6.7	1.5	0.47
St. Aubin	4.7	2.1	0.67
St. Brelade's Church	1.7	0.42	0.15
St. Clair	9.4	4.7	2.1
St. Clement's Church	0.75	0.34	0.21
St. Helier	6.0	0.8	0.11
St. Martin's Church	-	>5.0	-
St. Mary's Church	7.5	3.8	1.2
St. Ouen's Church	2.7	1.9	0.67
St. Peter's Church	7.5	3.8	1.2
St. Saviour's Church	-	>5.0	-
Six Rues	-	>5.0	-
La Thiebaut	0.42	0.24	0.12
Trinity	-	>5.0	-
Trodais	3.4	2.7	1.7
Trois Bois	-	>5.0	-

## JERSEY

Place	Max.	Median	Min.
Ville Emphrie	1.7	0.94	0.47
Ville ès Gaudins	5.3	3.8	1.3
Ville ès Nouaux (Rozel)	-	>5.0	-
Ville-ès-Renauds	1.9	1.2	0.75

With the exception of a small part of St. Peter Port the field strength in the southern half of Guernsey exceeds 0.5 mV/m. In the north of the island the field generally lies between 0.2 and 0.5 mV/m but in the west parts of Pleinmont and King's Mills are poorly served, the field strength being less than 0.1 mV/m.

The service in Jersey is, of course, much better than that provided in Guernsey, the lowest median field strength in any village being 0.24 mV/m.

St. Helier, with a median field strength of 0.8 mV/m, has a good service and the whole island, with the possible exception of a few isolated parts, receives a relatively good service.

Table 2, prepared by Engineering Information Department, shows the estimated population within the 5, 0.5 and 0.1 mV/m contours.

TABLE 2

Field Strength mV/m	Guernsey	Jersey	Other Islands	Total
5.0	-	12,550	-	12,550
0.5	15,540	55,630	570*	71,740
0.1	41,250	57,300	610**	99,160

\*Sark, Brechou and Jethou

\*\*Sark, Brechou, Jethou and Herm

The total population of the Channel Isles is 102,800 of which 97% are within the 0.1 mV/m contour.

## 4. CONCLUSIONS.

The Les Platons transmitter provides a very good service in Jersey and a satisfactory service over most of Guernsey. A small, not densely populated area in the west of Guernsey is, however, outside the 0.1 mV/m contour. In this area it will be necessary for viewers to be provided with well-designed aerials in order to receive a good picture.